

12147600 SOUTH FORK TOLT RIVER NEAR INDEX, WAPuget Sound Basin
Snoqualmie Subbasin

LOCATION.--Lat 47°42'25", long 121°35'56" referenced to North American Datum of 1927, in NE ¼ SW ¼ sec.25, T.26 N., R.9 E., King County, WA, Hydrologic Unit 17110010, on left bank 0.6 mi upstream from Phelps Creek, 8.1 mi south of Index, and at mile 12.9.

DRAINAGE AREA.--5.34 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 1959 to December 1963, November 1967 to current year.

REVISED RECORDS.--WDR WA-02-1: 1999-2000(P).

GAGE.--Water-stage recorder. Elevation of gage is 1,850 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1961, at datum 0.85 ft higher. Oct. 1, 1961, to Sept. 30, 1992, at datum 1.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges and those above 900 ft³/s and below 15 ft³/s, which are poor. No regulation or diversion upstream from station. A portion of flow is within the gravel streambed and is unmeasurable. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--42 years (water years 1961-63, 1969-2007), 54.9 ft³/s, 139.61 in/yr, 39,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,240 ft³/s, Dec. 15, 1999; gage height, 4.54 ft, possible result from debris dam break up; maximum gage height, 8.13 ft, present datum, Dec. 14, 1959; minimum discharge, 2.2 ft³/s, Oct. 9, 10, 1989, Sept. 9, 10, 1997, Sept. 14-17, 1998.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 4	1930	896	3.54
Nov 6	1030	*2,130	*4.48
Nov 7	1430	1,050	3.67
Jan 2	1600	1,020	3.63
Mar 12	0315	1,130	3.74
Mar 24	0630	1,340	3.95

Minimum discharge, 4.1 ft³/s, Oct. 12-15, gage height, 0.60 ft.

12147600 SOUTH FORK TOLT RIVER NEAR INDEX, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.8	16	24	49	17	15	60	59	74	35	9.5	8.7
2	5.6	22	20	593	15	13	46	76	80	33	9.1	8.3
3	5.3	260	19	211	15	16	40	75	92	31	8.9	7.9
4	5.1	469	e23	75	15	24	37	65	88	31	8.8	8.9
5	4.9	360	e29	47	26	35	37	55	72	32	8.5	10
6	4.8	1,350	e26	43	42	44	56	46	57	28	8.1	8.6
7	4.9	804	e41	160	52	68	85	64	46	24	8.3	7.9
8	4.9	194	e59	87	50	68	107	102	41	21	21	7.5
9	4.9	84	e74	94	41	48	148	93	43	19	16	7.2
10	4.6	91	e89	67	35	61	85	68	134	19	12	7.0
11	4.3	83	e150	40	43	539	57	63	91	18	10	6.7
12	4.2	116	137	29	43	636	45	63	54	17	9.5	6.6
13	4.1	146	160	25	32	148	43	63	50	16	8.9	6.3
14	4.1	74	162	22	34	77	84	50	45	15	8.5	6.3
15	12	179	146	20	297	53	77	60	42	14	8.1	6.3
16	62	176	64	19	199	86	64	81	42	13	8.1	6.6
17	30	68	42	17	85	132	83	69	96	12	8.1	11
18	18	46	33	16	75	332	62	57	106	12	7.9	12
19	103	88	29	23	93	184	51	65	e90	13	8.5	10
20	72	116	28	30	105	173	43	70	e102	13	11	8.9
21	33	115	40	22	41	86	36	74	e94	18	24	8.5
22	20	76	31	31	31	74	37	61	e85	24	22	9.9
23	15	56	31	76	25	170	39	53	e71	24	15	10
24	33	42	34	58	22	1,020	50	54	e64	28	12	8.7
25	53	34	57	44	21	385	65	58	e69	18	11	8.1
26	30	30	38	33	19	112	83	63	e61	15	13	8.4
27	58	e25	31	27	16	73	98	68	e53	13	13	8.1
28	39	e23	24	24	16	55	133	59	e42	12	11	25
29	39	e21	21	22	---	45	86	49	46	11	9.9	24
30	29	25	19	20	---	43	58	67	42	11	9.0	58
31	21	---	18	18	---	68	---	77	---	10	8.7	---
Total	734.5	5,189	1,699	2,042	1,505	4,883	1,995	2,027	2,072	600	347.4	331.4
Mean	23.7	173	54.8	65.9	53.8	158	66.5	65.4	69.1	19.4	11.2	11.0
Max	103	1,350	162	593	297	1,020	148	102	134	35	24	58
Min	4.1	16	18	16	15	13	36	46	41	10	7.9	6.3
Ac-ft	1,460	10,290	3,370	4,050	2,990	9,690	3,960	4,020	4,110	1,190	689	657
Cfs/m	4.44	32.4	10.3	12.3	10.1	29.5	12.5	12.2	12.9	3.62	2.10	2.07
In.	5.12	36.15	11.84	14.23	10.48	34.02	13.90	14.12	14.43	4.18	2.42	2.31

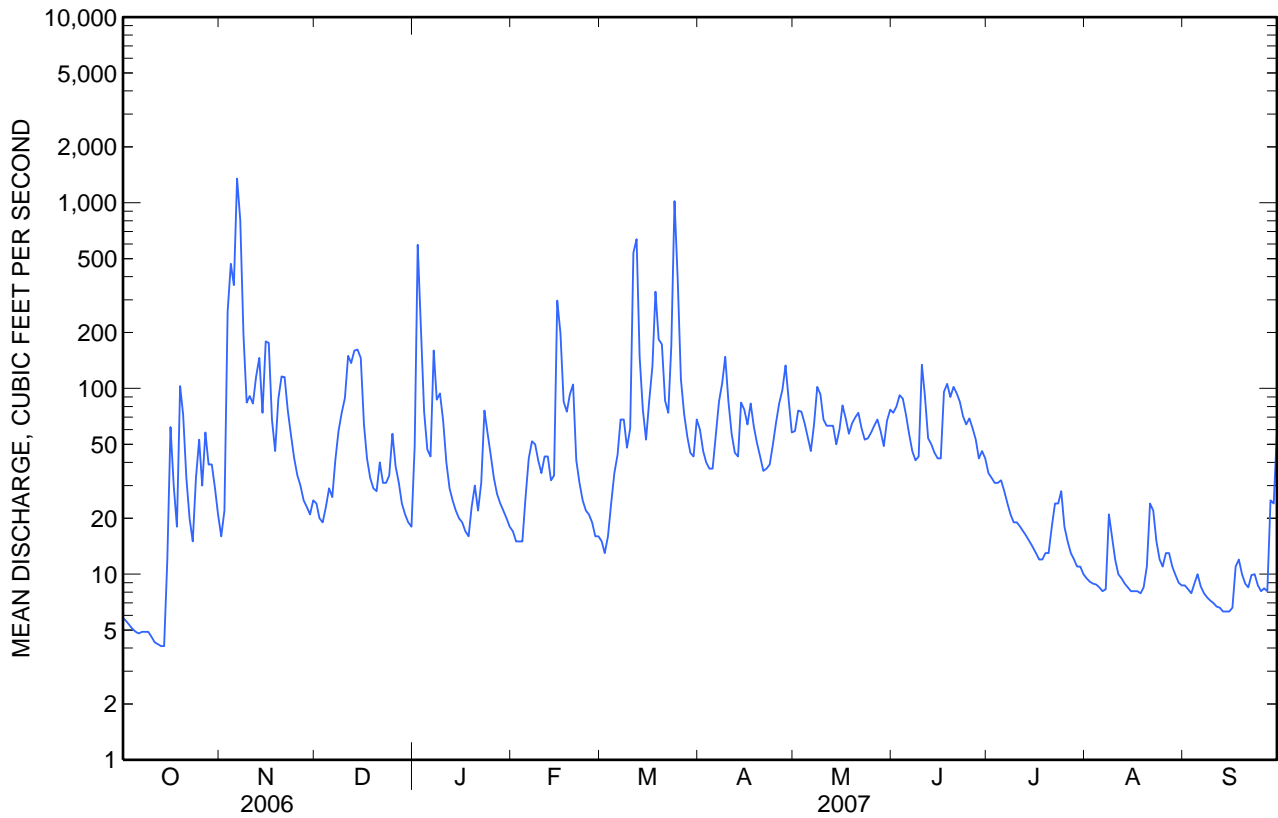
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	45.0	82.6	73.7	75.5	59.3	49.7	63.6	78.6	66.7	29.9	13.5	24.6
Max	107	181	165	154	150	158	116	140	160	81.3	37.4	73.0
(WY)	(1986)	(1991)	(1976)	(1990)	(1982)	(2007)	(1988)	(1972)	(1974)	(1974)	(1975)	(2004)
Min	6.24	14.0	20.0	19.8	9.41	18.6	28.6	26.0	13.1	7.32	3.81	3.56
(WY)	(1988)	(1980)	(1986)	(1981)	(1969)	(1962)	(1975)	(1992)	(1992)	(2003)	(2006)	(1998)

12147600 SOUTH FORK TOLT RIVER NEAR INDEX, WA—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1960 - 2007	
Annual total	20,345.1		23,425.3			
Annual mean	55.7		64.2		54.9	
Highest annual mean					77.8	
Lowest annual mean					34.3	
Highest daily mean	1,350	Nov 6	1,350	Nov 6	1,500	Jan 18, 2005
Lowest daily mean	2.5	Sep 7	4.1	Oct 13	2.2	Sep 9, 1997
Annual seven-day minimum	2.6	Sep 7	4.4	Oct 8	2.2	Sep 11, 1998
Annual runoff (ac-ft)	40,350		46,460		39,750	
Annual runoff (cfsm)	10.4		12.0		10.3	
Annual runoff (inches)	141.73		163.19		139.61	
10 percent exceeds	115		109		114	
50 percent exceeds	31		39		33	
90 percent exceeds	4.2		8.5		7.5	



12147600 SOUTH FORK TOLT RIVER NEAR INDEX, WA—Continued**WATER-QUALITY RECORDS**

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1994 to current year.

INSTRUMENTATION.--Temperature recorder since October 1994, with a 15-minute logging interval.

REMARKS.--Records are excellent except Oct. 29-31, Dec. 8-9, Jan. 28-29, which are good; Nov. 1-2, Jan. 30 to Feb. 9, which are fair; and Nov. 3-13, Feb. 10-26, Mar. 4-13, 15-19, 22-31, and Apr. 1-23, which are poor.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 18.0°C (rounded), July 27-29, 1998; minimum recorded, 0.0°C, at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 16.3°C, July 11; minimum, 0.7°C, Dec. 18 and Feb. 1,2, but may have been lower during periods of missing record.

**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
October			November			December			January			
1	8.6	7.3	7.9	4.1	3.3	3.7	---	---	---	---	---	---
2	7.8	6.5	7.2	5.0	3.8	4.2	---	---	---	---	---	---
3	8.6	6.4	7.3	7.1	5.0	6.2	---	---	---	---	---	---
4	7.8	6.8	7.3	7.6	6.9	7.3	---	---	---	---	---	---
5	9.4	7.3	8.2	8.3	7.4	7.5	---	---	---	---	---	---
6	9.1	8.3	8.7	9.9	8.3	9.3	---	---	---	---	---	---
7	9.0	8.3	8.6	9.4	8.1	9.0	---	---	---	---	---	---
8	8.9	8.0	8.3	8.3	7.6	7.9	---	---	---	---	---	---
9	8.1	6.9	7.5	7.7	6.9	7.2	4.0	3.3	3.7	---	---	---
10	7.5	6.3	6.9	7.2	6.6	6.9	3.5	2.9	3.3	---	---	---
11	7.5	6.3	6.9	7.3	6.5	7.0	3.2	2.8	3.0	---	---	---
12	7.8	6.6	7.2	7.0	6.6	6.8	3.2	2.8	3.0	---	---	---
13	7.8	6.8	7.3	6.8	5.7	6.3	3.4	2.9	3.0	---	---	---
14	8.1	6.8	7.5	---	---	---	3.2	2.2	2.9	---	---	---
15	8.0	7.7	7.9	---	---	---	2.9	1.9	2.5	---	---	---
16	7.9	7.4	7.6	---	---	---	2.3	2.0	2.1	---	---	---
17	8.2	7.3	7.7	---	---	---	2.2	1.6	1.9	---	---	---
18	7.8	7.5	7.6	---	---	---	2.3	1.6	1.9	---	---	---
19	8.1	7.5	7.8	---	---	---	2.7	2.1	2.4	---	---	---
20	8.0	7.2	7.6	---	---	---	---	---	---	---	---	---
21	7.5	6.8	7.1	---	---	---	2.7	1.9	2.4	---	---	---
22	7.4	6.6	7.0	---	---	---	2.5	2.1	2.3	---	---	---
23	6.9	5.8	6.4	---	---	---	---	---	---	---	---	---
24	6.6	5.9	6.2	---	---	---	2.3	1.6	2.0	---	---	---
25	6.7	6.2	6.4	---	---	---	2.8	1.6	2.4	---	---	---
26	6.8	6.2	6.5	---	---	---	2.8	1.9	2.5	---	---	---
27	7.1	6.5	6.8	---	---	---	2.1	1.4	1.7	---	---	---
28	6.7	6.0	6.4	---	---	---	1.8	0.8	1.3	2.5	2.0	2.2
29	6.7	5.3	6.1	---	---	---	1.7	0.7	1.2	2.7	1.9	2.2
30	5.4	4.3	4.8	---	---	---	1.7	1.3	1.6	2.8	2.1	2.4
31	4.4	3.8	4.1	---	---	---	---	---	---	2.7	1.3	2.1
Month	9.4	3.8	7.1	---	---	---	---	---	---	---	---	---

12147600 SOUTH FORK TOLT RIVER NEAR INDEX, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	1.6	1.0	1.3	---	---	---	3.4	2.8	3.1	---	---	---
2	1.9	0.9	1.3	---	---	---	3.4	1.3	2.6	---	---	---
3	2.1	0.9	1.6	---	---	---	4.1	2.1	3.0	---	---	---
4	2.8	2.0	2.4	3.1	1.6	2.3	4.0	3.0	3.5	---	---	---
5	2.8	2.1	2.4	3.1	2.2	2.6	5.8	3.5	4.4	---	---	---
6	3.0	2.3	2.6	3.2	2.2	2.7	6.4	4.1	5.0	---	---	---
7	3.4	2.6	3.0	3.0	2.4	2.7	5.3	4.4	4.8	---	---	---
8	3.3	2.7	3.0	2.8	2.1	2.5	4.9	4.2	4.5	---	---	---
9	3.2	2.7	3.0	3.5	2.4	2.9	4.3	3.2	3.8	---	---	---
10	3.6	2.6	3.1	3.4	2.8	3.1	3.6	2.9	3.3	---	---	---
11	3.5	3.0	3.2	4.0	2.5	3.2	4.6	2.8	3.6	---	---	---
12	3.6	2.9	3.2	4.0	3.2	3.3	4.4	3.5	3.9	---	---	---
13	3.4	2.7	3.1	3.3	2.7	3.0	4.7	3.5	4.1	---	---	---
14	3.4	2.8	3.1	---	---	---	4.6	3.7	4.2	---	---	---
15	3.5	3.0	3.2	3.1	2.1	2.6	4.9	2.5	3.6	---	---	---
16	3.7	3.0	3.4	4.0	2.8	3.3	4.2	3.3	3.8	---	---	---
17	3.8	3.3	3.6	4.0	3.3	3.6	4.3	3.1	3.7	---	---	---
18	3.5	2.6	3.0	4.0	3.3	3.7	4.2	3.0	3.5	---	---	---
19	2.9	2.4	2.7	4.1	3.2	3.7	5.0	2.9	3.8	7.0	5.8	6.4
20	2.9	2.5	2.7	---	---	---	4.8	2.8	3.7	6.5	5.2	5.9
21	2.8	2.3	2.6	---	---	---	5.3	3.2	4.1	5.6	4.8	5.2
22	3.0	2.1	2.5	3.8	2.9	3.3	5.5	4.1	4.6	6.6	5.2	5.7
23	2.6	1.7	2.2	3.9	3.2	3.5	6.7	3.6	4.9	7.8	5.1	6.4
24	2.0	0.7	1.4	3.8	3.4	3.6	---	---	---	9.1	5.4	7.0
25	2.5	1.6	2.0	3.8	3.2	3.5	---	---	---	8.3	6.3	7.3
26	2.5	1.5	2.0	4.1	2.8	3.5	---	---	---	8.4	6.7	7.5
27	---	---	---	3.8	2.9	3.4	---	---	---	7.3	5.9	6.7
28	---	---	---	4.2	3.0	3.5	---	---	---	7.4	5.6	6.3
29	---	---	---	5.1	2.9	3.9	---	---	---	9.8	5.6	7.5
30	---	---	---	4.7	3.8	4.2	---	---	---	10.4	7.2	8.6
31	---	---	---	4.2	3.3	3.9	---	---	---	10.6	7.3	8.8
Month	---	---	---	---	---	---	---	---	---	---	---	---

12147600 SOUTH FORK TOLT RIVER NEAR INDEX, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	10.8	7.5	9.0	11.3	8.1	9.5	15.2	11.1	12.8	12.8	10.7	11.6
2	11.3	8.1	9.6	12.2	8.8	10.1	15.5	11.7	13.3	12.7	10.8	11.6
3	11.6	8.7	10.0	13.0	8.8	10.6	13.4	12.2	12.7	12.6	11.0	11.8
4	10.4	9.1	9.6	13.8	9.5	11.3	12.5	11.2	11.8	12.2	11.6	11.9
5	9.2	7.6	8.4	14.2	10.3	11.9	14.4	11.3	12.6	12.8	11.0	11.8
6	7.6	7.0	7.3	14.1	10.2	11.8	14.2	12.1	12.9	13.1	11.3	12.0
7	7.7	6.8	7.2	13.9	9.1	11.6	12.7	11.8	12.1	12.2	10.5	11.3
8	7.8	7.0	7.4	12.9	10.2	11.5	12.0	11.0	11.6	11.8	9.6	10.6
9	7.9	6.9	7.4	14.5	10.2	12.1	11.9	10.6	11.2	11.9	9.8	10.7
10	7.7	6.7	7.3	15.3	10.8	12.7	11.6	10.5	11.0	12.5	10.3	11.2
11	7.2	6.3	6.7	16.3	11.7	13.7	12.6	9.5	10.9	12.7	10.7	11.6
12	9.4	6.3	7.6	14.8	12.0	13.3	12.1	10.9	11.4	12.3	10.8	11.5
13	7.7	7.2	7.5	14.0	12.0	12.9	13.6	10.1	11.6	12.2	10.3	11.2
14	8.4	6.9	7.5	15.6	11.5	13.3	14.2	10.8	12.2	11.8	11.2	11.5
15	7.8	7.1	7.4	15.0	12.5	13.5	14.6	11.4	12.8	11.6	10.9	11.2
16	7.7	7.0	7.3	14.3	12.1	13.1	13.3	12.0	12.4	11.2	10.3	10.7
17	7.2	6.7	6.9	13.2	12.1	12.7	12.5	10.9	11.8	11.1	10.1	10.5
18	7.9	6.5	7.0	12.6	11.8	12.1	12.2	10.8	11.5	10.4	9.3	9.8
19	9.1	6.4	7.6	13.0	11.4	12.0	11.6	10.8	11.1	9.9	8.1	9.0
20	10.7	7.2	8.7	12.0	11.1	11.6	11.0	10.4	10.7	9.4	8.1	8.9
21	9.6	8.2	8.8	12.6	11.1	11.8	11.6	10.5	11.0	9.9	8.0	9.0
22	9.4	7.9	8.5	12.0	11.5	11.7	11.7	10.3	11.0	9.7	8.6	9.3
23	10.7	7.5	8.3	12.2	11.3	11.7	13.0	10.1	11.3	9.1	8.1	8.5
24	8.4	7.4	7.9	13.1	10.7	11.7	13.4	10.2	11.6	9.0	7.4	8.1
25	8.8	7.0	7.7	14.4	10.1	12.0	11.9	11.0	11.3	9.0	7.9	8.4
26	10.9	7.2	8.7	14.3	11.1	12.4	11.7	10.2	10.8	9.2	7.7	8.3
27	10.3	8.0	9.0	15.2	11.6	13.0	12.0	9.0	10.3	9.7	8.0	8.8
28	9.7	8.4	9.0	14.7	11.2	12.7	12.4	9.3	10.6	9.4	7.6	8.4
29	9.4	8.3	8.9	13.1	11.9	12.4	13.3	10.1	11.5	8.5	7.5	8.0
30	11.0	7.9	9.1	13.8	10.9	12.1	13.7	11.0	12.2	7.8	7.5	7.7
31	---	---	---	14.3	10.4	12.1	12.4	11.2	11.7	---	---	---
Month	11.6	6.3	8.1	16.3	8.1	12.1	15.5	9.0	11.7	13.1	7.4	10.2